

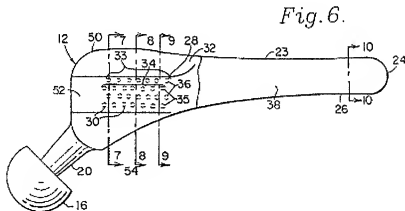
REMARKS

Claims 1 and 3 have been amended to recite the claimed subject matter in a clearer manner. Claims 1-8 remain pending in this application.

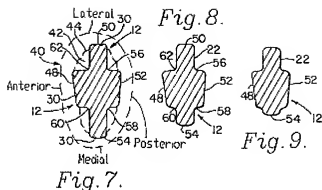
Claims 1-3 and 5-7 remain rejected under 35 USC 102(b) on Bohn (US 5,507,833). This rejection is respectfully traversed with respect to the claims as amended.

Claim 1 recites a hip prosthesis having a shaft to be inserted into a femur. The shaft has a proximal part to be inserted in a metaphyseal region of the femur, and the proximal part has projecting fins on its front and rear faces. Claim 1 has been amended to clarify that each fin extends from a distal end to a proximal end of this proximal part, and that the width of the fins increases from the distal end to the proximal end of the proximal part. Claim 1 has also been amended to clarify that the height of the fins decreases in a lateral direction perpendicular to a longitudinal axis of the shaft. These aspects of the claimed invention are neither taught nor suggested by Bohn.

For instance, as shown in FIG. 6 of Bohn below:



the width of outwardly extending lobe 52 is clearly shown to be parallel, and not increasing as claimed, from the distal end to the proximal end of the proximal body portion of prosthesis 12. Further, as shown in FIGS. 7-9 of Bohn below:



the height of front and rear-facing outwardly extending lobes 48 and 52 is clearly shown to be increasing, not decreasing as claimed, in a lateral direction perpendicular to a longitudinal axis of the shaft (i.e., in a straight-upwardly direction in the figures).

Accordingly, because Bohn does not disclose the elements required by the claims, the rejection of claim 1 and claims depending thereon should be withdrawn.

Claims 4 and 8¹ stand rejected under 35 USC 103(a) on Bohn in view of official notice. In particular, the Examiner states:

However such a modification would simply constitute rotating the known fin on the implant surface. It does not appear to solve any particular problem or serve any particular purpose. Furthermore it is expected that the prosthesis of Bohn would serve equally well with the fin height reversed. Therefore it would have been obvious to one of ordinary skill in the art to modify the fin heights of Bohn to have a lateral edge height that is less than half the medial edge height. Furthermore, such a modification would have obtained predictable results and occurred using known methods.

This rejection and its supporting reasoning are respectfully traversed.

Foremost, the Examiner states that the claim limitations at issue “do[] not appear to solve any particular problem or serve any particular purpose,” yet the Examiner concludes that “it is expected that the prosthesis of Bohn would serve equally well with the fin height reversed” and therefore the claimed subject matter would have been obvious. However, the Examiner has not

¹ Based on the subject matter addressed by the section 103 rejection, the Examiner appears to have intended to reject claim 6 rather than claim 8 under this rejection.

provided any reason why a person or ordinary skill in the art would have reversed the height of Bohn's fins as suggested in the Action. Bohn is devoid of any such reason. It is improper for an Examiner to take official notice of what might be "expected" or "obvious" in the art when the Examiner admits a lack of appreciation in the art for the problem solved or purpose served by the recited structure.

Further, regarding the problem solved or purpose served by the claimed subject matter, the claimed configuration of the projecting fins improves the force transmission between the hip prosthesis and the femur. The inventors have appreciated that in normal use of the prosthesis (e.g., a person walking), maximum loads have to be transmitted in the medial direction. When inserting the claimed prosthesis into the femur the projecting fins enter the metaphyseal region of the femur. The projecting fins cut into the bone substance of the metaphyseal region and compress it. After insertion of the prosthesis and compression of the bone material, the steep medial flank of the projecting fin is in a stable surface-to-surface engagement with the bone material. The surface-to-surface engagement allows for a maximum force transmission between the projecting fin and the bone material in the medial direction.

From the point of view of force transmission in the lateral direction, the lateral flank of the projecting fins could be configured at the same height as or higher than the medial flank. However, introducing a shaft into the femur with fins configured in such a way would implicate the risk of the bone bursting from the force exerted by the fins. For this reason, the height of the claimed fins decreases in the lateral direction. The medial flank is configured higher than the lateral flank to improve the force transmission in the medial direction. The lateral flank is less high to reduce the risk of bursting the bone. The reduced force transmission between the lateral flank and the bone is acceptable because the maximum load in the lateral direction is lower than the maximum load in the medial direction. This is explained in the specification on page 2, lines 24-34.

Such a configuration is not taught or suggested by Bohn, since Bohn discloses the exact opposite configuration – one in which the lateral edge of the fin is higher than the medial edge (as explained above in reference to FIGS. 7-9 of Bohn) – than the claimed configuration. Accordingly, because the Examiner has not established a prima facie case of obviousness on Bohn, this rejection should be withdrawn.

In view of the above, early action allowing claims 1-8 is solicited.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 246472007600.

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